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54 Description: Plaster for antibacterial wound protection specifically when inserting an intravenous catheter.

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Patent Requirements / Protection Requirements

1. A plaster for antibacterial wound protection, particularly for the application of intravenous catheters, distinguished by a viscous, antibiotic-soaked pad (4) or something of the kind, a cap (5) which seals the padding (4) at the top as well as holding it in place, an adhesive strip (6), a cover adhesive strip (6) meeting the cap all around, and a removable foil (8) which covers the cover and adhesive strip (6) and which seals the padding in the downward direction.
2. A plaster according to the requirements of 1., distinguished by a tear seam (7) extending continuously from the edge of the cover adhesive strip (6) to the middle of the cap (5) and by the fact that the padding (4) is separated exactly as the tear seam (7) is.
3. A plaster according to the requirements of 2., distinguished by the fact that foldable flaps (10) have been designed at the side tear seam, the inside of which is an adhesive surface with a removable foil (8a).
4. A plaster according to the requirements of 3., distinguished by the fact that the flaps (10) have a hollow space (9a) for an intravenous catheter.
5. A plaster according to one of the requirements 1. to 4., distinguished by the fact that the cover adhesive strip (6) and/or the flaps (10) opposite the tear - away foil (8, 8a) have a hollow space (9, 9a).

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- 2 -

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Description:

Plaster for the antibacterial
protection, particularly for the
application of intravenous catheters.

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- 3 -

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Plaster for antibacterial protection, particularly for
the application of intravenous catheters.

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The invention is a plaster for antibacterial protection,
particularly for the application of intravenous catheters

In the field of medicine it is an established fact and it is customary to use catheters, be it for their ability to provide a parenteral infusion of a high concentration, of calorie laden or of electrolyte-bearing solutions, or be it that they are to allow the central vein pressure to be a significant factor as in the case of patients under intensive care, since they allow constant and free access to the venous circulatory crus. However, the application of such a catheter is not without its complications.

The most common complication is an inflammation in that section of the vein, in which the cannula has been placed, which can easily lead to thrombophlebitis. In addition to a reaction by the intima to the cannula as a foreign body, the skin pathogens entering the vein also are a factor. Furthermore, it is just at the point where the catheter exits that these occasionally lead to phlegmonose inflammations (extensive skin infections). Such reactions usually appear as soon as 2 to 3 days later

It is the function of the invention, to introduce a plaster which can be used as antibacterial wound protection, in particular in the installation of intravenous catheters. It is to allow for the installation of intravenous catheters for longer than only 2 to 3 days (so-called long term or indwelling catheters) for up to 10 or 12 days, without causing skin pathogens to enter the vein or the subcutaneous tissue resulting in skin phlegmenes or thrombophlebitides.

The solution to the problem is presented as the invention of a plaster, distinguished by a viscous, antibiotic - soaked pad or something of the kind, a cap which seals the padding at the top as well as holding in place, a cover adhesive strip meeting the cap at its entire circumference, and a removable foil which covers the cover and adhesive strip and which seals the padding in its downward direction.

The padding can be a sponge and can consist of a sterile synthetic material; on the other hand it can also be made of a multi-layered absorbent woven material, such as linen or cotton, for example. The antibiotics have a relatively high consistency in order to prevent inadvertent leakage. It can even be in the form of a cream.

The cap consists of a dense material such as a synthetic material (e.g. polyethylene), rubber or something similar. On the one hand it is to prevent possible contamination from the outside and on the other the drying out of the padding.

A plaster which has been manufactured according to the specifications of the invention, can be used in a particularly simple manner as an effective antibacterial protective cover for skin injuries, by simply removing the removable foil and by placing the now exposed antibiotic-saturated pad onto the surface of the wound. It is then held firm in this location by means of the cover and adhesive strip and is then generally sealed off.

If an intravenous catheter has been put in place, the plaster can easily be cut open with a sterile pair of scissors, if possible before the removal of the removable foil from the edge to approximately the middle and can later be placed around the catheter and kept in place. The beginning created by the cut and the corresponding end of the cover and adhesive strip can easily be overlapped drawing the cap closed once again.

By using a plaster which has been manufactured according the specifications of the invention, it is possible to kill the skin pathogens in the area of a wound with any manipulation worth mentioning, thereby reducing the danger of skin phlegmones and thrombophlebitides considerably.

It is to an advantage that a continuous tear seam is provided from the edge of the cover and adhesive strip to approximately the center of the cap, and that the padding is separated in accordance with the tear seam.

The tear seam is in fact a weakened area in the cover and adhesive strip of the cap, possibly of the removable foil as well.- This format can be used in the manner previously described without requiring any further tools such as scissors or the like in the application.

According to further suggestion, flaps that can be folded back have been attached next to the tear seam, the inside of which is an adhesive surface with a removable foil. - The flaps can be folded towards each other and can be overlapped, thereby once again closing the tear seam and also giving the catheter additional strength.

To take the idea of the invention one step further, the flaps have a hollow space allowing for an intravenous catheter.- Here the flaps extend beyond the tear seam and surround the catheter and thereby keeping it especially firmly in place.

- 7 -

In order to make gripping and removing the removable foil easier, the cover and adhesive strip and/or the flap opposite the removable foil have a hollow space.

Additional details and advantages of the invention are subsequently described for two preferential samples along with the diagram. Shown are:

Figure 1., a longitudinal section of positioned catheter with a plaster, and

Figure 2., a second version of a plaster seen from the top.

In Figure 1. an intravenous catheter (1) is put through tissue (2) and ends in a vein (3). The catheter (1) is on the surface of the tissue (2) surrounded by padding (4) which has been impregnated with an antibiotic. The padding (4) is held in a cap (5) and at the side meets a cover and adhesive strip (6) which adheres to the surface of the tissue (2).

In Figure 2. a tear strip (7) stretches from the edge of the cover and adhesive strip (6) to approximately the center. The tear strip (7) consists of a weakened area which can be torn when pulled sideways.

The cap (5) is sealed downward along with the padding (4) in it by a removable foil (8). Opposite the removable foil (8) the cover and adhesive strip (6) has a hollow space (9), which allows for easy gripping and removal of the removable foil (8).

- 8 -

To the sides of the tear strip (7) foldable flaps are designed, the inside of which are adhesive surfaces and have a removable foil (8a). Opposite the removable foil (8a) the flaps (10) have a hollow space (9a) just as the cover and adhesive strip. The hollow space is so designed, that it facilitates a better positioning of the flaps (10) around the catheter at the same time.

- 9 -

Reference List

- (1) Catheter
- (2) Tissue
- (3) Vein
- (4) Padding
- (5) Cap
- (6) Cover and Adhesive Strip
- (7) Tear Seam
- (8) Removable Foil
- (8a) Removable Foil
- (9) Hollow Space
- (9a) Hollow Space
- (10) Flap

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